## REMARKS

This amendment is being filed as a submission accompanying a Request for Continued Examination pursuant to 37 C.F.R. § 1.114 and before payment of the issue fee.

In the Notice of Allowance and Fee(s) Due mailed on August 26, 2003, the Examiner allowed Claims 5-6, 50-51, and 55-59 in this Application. Claims 60, 66, and 68-74 were canceled in an Examiner's Amendment accompanying the Notice of Allowance.

Applicants submit herewith amended Claim 5. Claim 5 has been amended to include "a virus pseudo-nucleocapsid consisting of a viral capsid polypeptide, wherein the viral capsid polypeptide is at least the first 124 amino acids of a hepatitis C capsid protein." Support for amended claim 5 can be found throughout the Specification, examples of which are provided below.

> In one example, a truncated core protein HCVC-124 *(corresponding to amino acids 2-124)* and HCVC-179 (corresponding to amino acids 2-179) has been purified . . . [Pg. 20, ll. 19-21; emphasis added].
>
> *An important feature of the present invention is the use of truncated HCV capsid protein* (for example, the HCVC124 isolate includes only 65% of the native protein structure). *Using the truncated capsid protein, large spherical particles (50-200 nm in diameter) were generated* that were amenable to characterization by light scattering and absorbance measurements. Furthermore, the LSVL particles form the basis of assays to identify inhibitors of HCV assembly and/or disassembly spontaneously formed in vitro. [Pg. 36, ll. 1-10]
>
> A *recombinant protein was generated* using standard molecular biologic techniques that includes residues 1 to 124 of the HCV capsid protein. [Pg. 36, ll. 12-14; emphasis added]
>
> Figure 1a-e shows the amino-acid sequences of these five variants: the full-length core protein (residues 1-191, 20.7 kD, SEG. ID. No.: 1), and carboxy terminus truncated variants Δ12 (residues 1-179, 19.6 kD, SEQ ID NO.: 1), and Δ67 (residues 1-124, 13.7 kD). Truncated core variants were chosen to either eliminate the long hydrophobic stretches of the protein (constructs Δ67) or to optimize protein expression (construct Δ12 and Δ67). [Pg. 40, ll. 4-12; emphasis added]

> Nucleocapsid pseudo-particles are generated by mixing purified recombinant core protein or core protein truncation variants with RNA under defined conditions. [Pg. 42, l. 20-21 through pg. 43, ll. 1]

Additional support for amended Claim 5 may be found in the references listed on form PTO/SB/08B accompanying the Request for Continued Examination which are references by Bukh et al. and Cammorota et al. The references teach that the amino acid sequence of the hepatitis C virus (HCV), including the amino acid sequence of the capsid protein, are well known and highly homologous within a genotype and across all hepatitis C genotypes. For example, Bukh et al. teaches that after isolating HCV from sera obtained from 52 individuals from 12 countries that, "the C [core or capsid] gene was exactly 573 nt [nucleotides] long in all 52 HCV isolates with an N-terminal start codon and no in-frame stop codons." [*See* pg. 8240, col. 2, ll. 16-17] In addition, Bukh et al. teaches that multiple sequence alignments of "the nucleotide identities of the C [core or capsid] gene among these HCV isolates were in the range of 79.4%-99.0%." [*See* pg. 8240, col. 2, ll. 23-24] Further, it is shown that "the identities of the predicted 191 aa [amino acids] of the C [core or capsid] protein among these HCV isolates were in the range of 85.3-100.0%." [*See* pg. 8242, col. 1, ll. 28-30] Burk et al. concludes that "the genetic relatedness of HCV isolates is equivalent when analyzing the most conserved (i.e., C) and the most variable (i.e., E1 genes)." [*See* pg. 8243, col. 1, Conclusion]

Claims 6, 50-51, and 55-59 remain in the application as dependent on amended Claim 5. With the exception of Claim 50, amended to correct a typographical error, these dependant claims remain in the same form as those allowed by the Examiner in the Notice of Allowance.

New Claims 75-80 are presented in this amendment. Claim 75 corresponds to previously presented Claim 69, Claim 77 corresponds to previously presented Claim 72, and Claim 78 corresponds to previously presented Claim 73. Support for new Claims 75-80 can be found in the examples presented above as well as in the references listed on form PTO/SB/08B as discussed above.

## CONCLUSION

Consideration for allowance of the claims pending in this application pursuant to the filing of this Request for Continued Examination (RCE) is respectfully requested for the reasons set forth herein. As such 5-6, 50-51, 55-59, and 75-80

The Examiner is requested to telephone the undersigned for any reason that would advance the application to issue.

It is believed that no additional fees are required. Should additional fees under 37 C.F.R. §§ 1.16 to 1.18 be required for any reason relating to the enclosed materials, or should an overpayment be included herein, the Commissioner is authorized to deduct or credit said fees from Deposit Account No. 07-0153.

Dated this 25th day of November 2003.

Respectfully submitted,
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